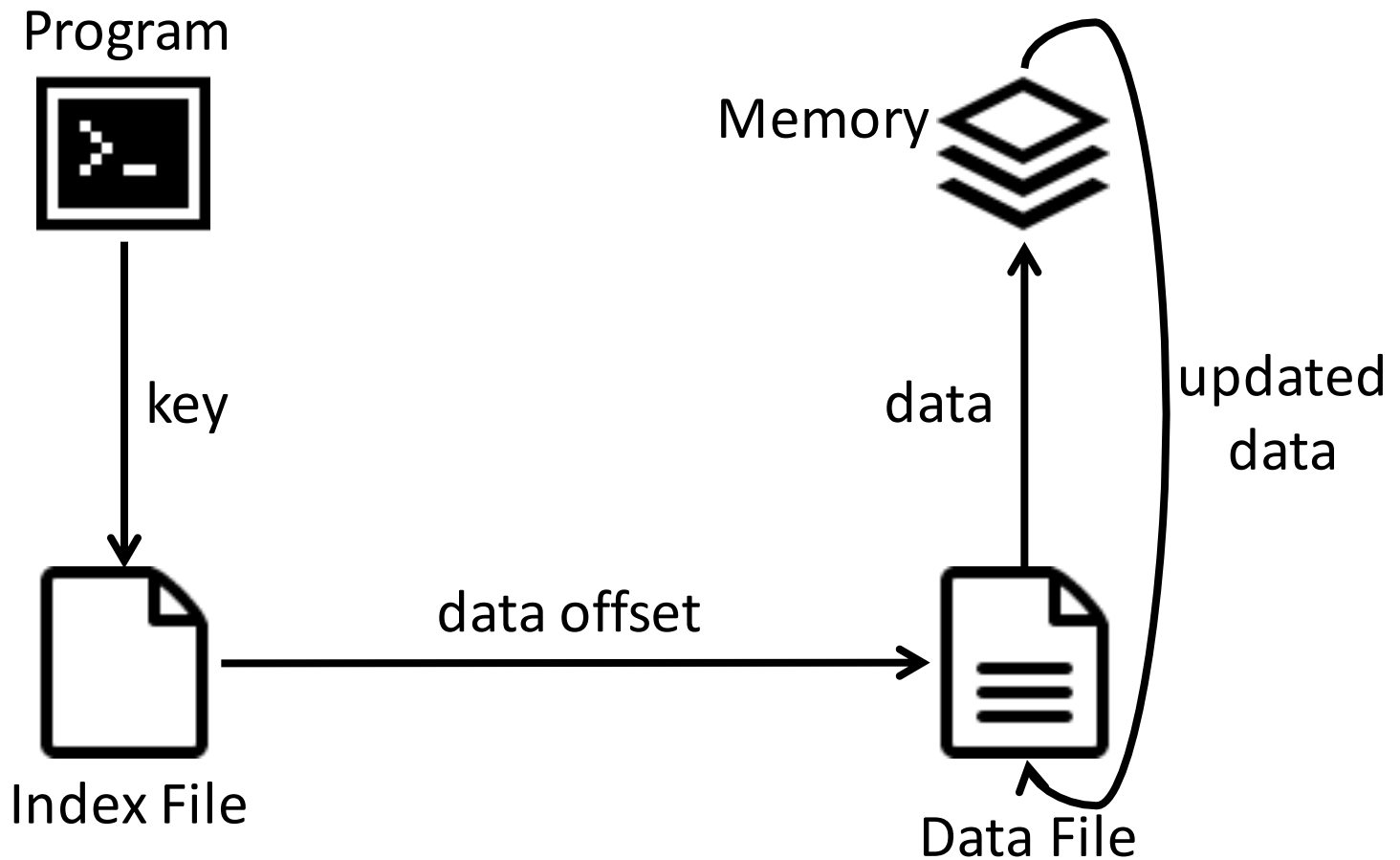


简易数据存储系统

Q & A

Commit before	7/29
Defense	7/30

Your Tiny Database Architecture



Generator



Test Data



Program



call API



Test

Memory



key



Index File



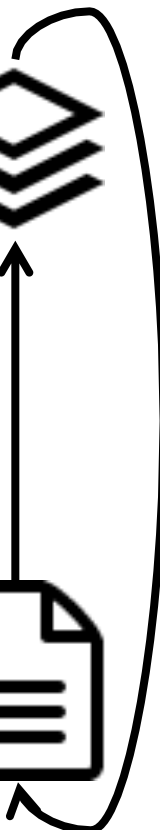
data offset

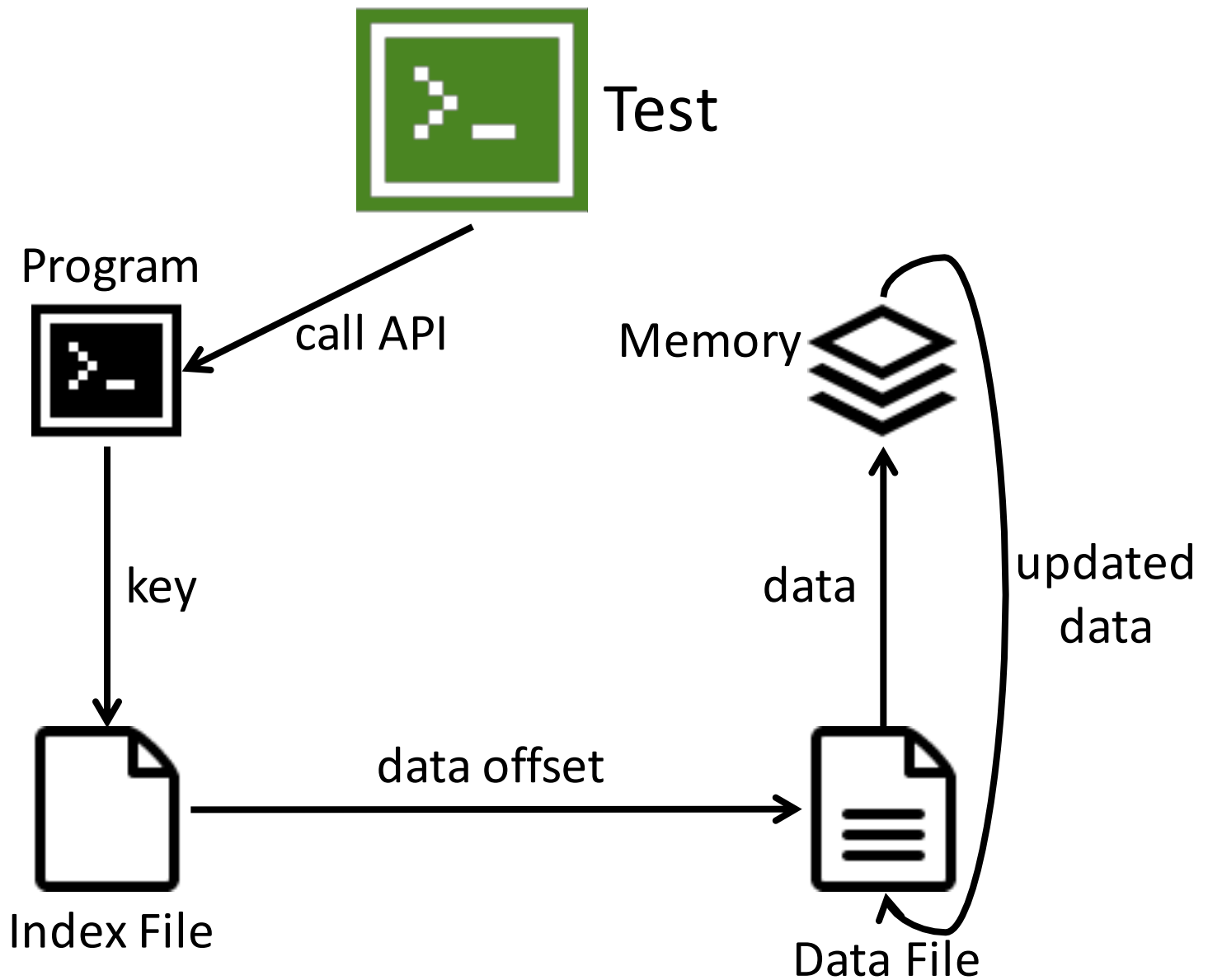


Data File

data

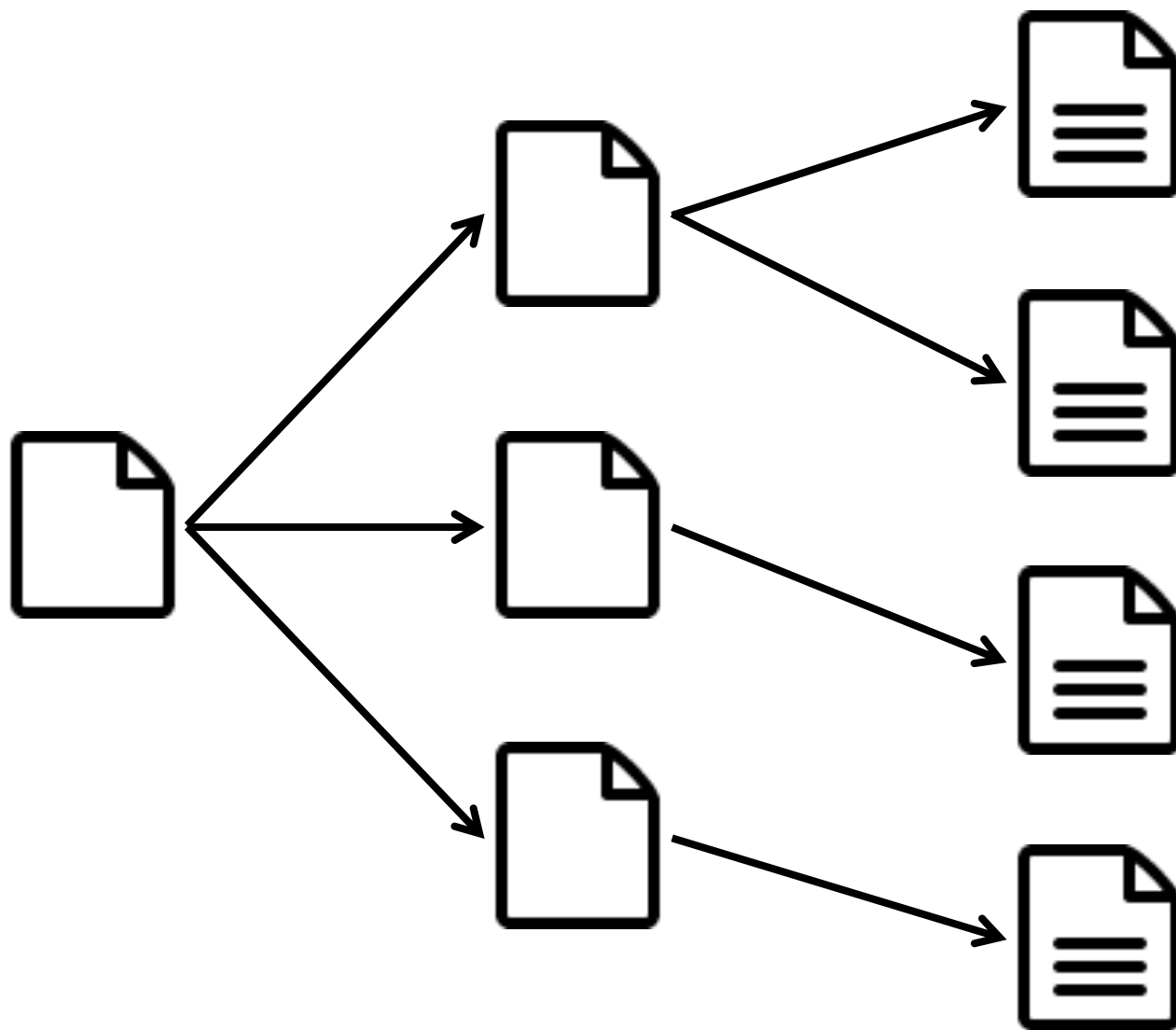
updated data

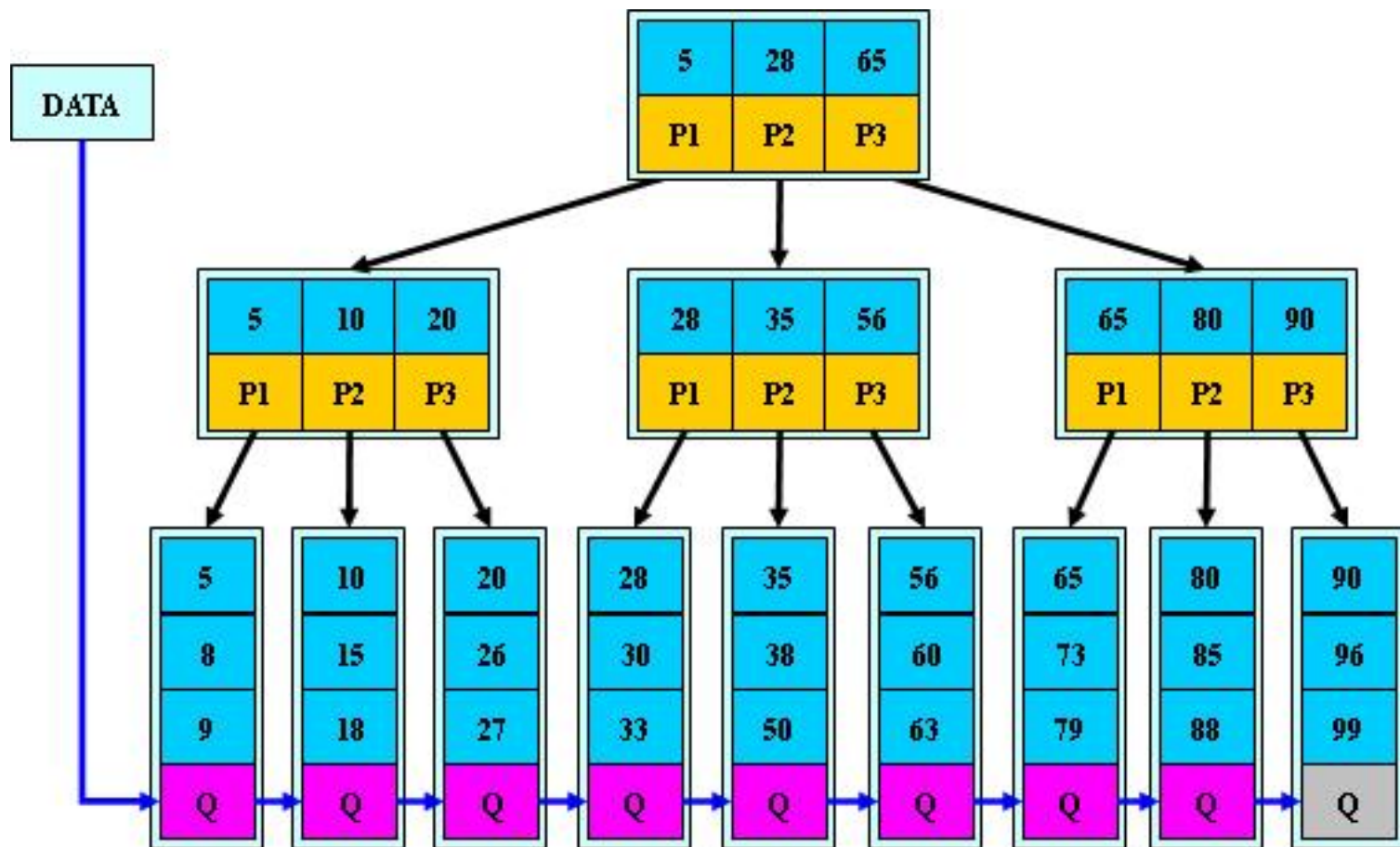






- Most popular relational database
- InnoDB storage engine
- B+ Tree index & hash table index





Others 1/2

- About memory and disk sync
 - Regard memory as disk's buffer
 - Design sync mechanism by yourself
 - Consider HHD continuous read and write
- About MMIO
 - Assume can NOT load all index file to memory
 - Of course, the same as data file

Others 2/2

- Supported data type
 - Optional
 - Regard as bytes
 - C++ Object → bytes
 - Serialization and Deserialization
 - Consider mutable length is better
- File fragment after delete data
- Design by yourself

Defense

- Date
 - 7/30 in schedule
 - 7/20, 7/22, 7/26 for special situation students
- Slides (6 mins)
 - Overview design and architecture
 - Data structure design, in memory and disk
 - Functional design and supported
 - Functional test & performance test
 - Summary
- Questions & Demo (4 mins)
- A computer can run your database & VGA port

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